WHAT IS CLAIMED IS:

- 1. A chimeric peptide represented by formula (I) or formula (II),
 - $(I) N-(S)_{m}-(T_{h})_{n}$
 - (II) $(T_b)_n (S)_m C$

or chimeric peptides which are mixtures of formula (I) peptides, mixtures of formula (II) peptides, or mixtures of formula (I) and formula (II) peptides, wherein:

N is the first 2, 3, 4, or 5 amino acid residues from the free N-terminus of a naturally-occurring internal peptide cleavage product which, when naturally-occurring in a mammal, is derived from a precursor protein or a mature protein;

C is the last 2, 3, 4, or 5 amino acid residues from the free C-terminus of said naturally-occurring internal peptide cleavage product;

T_h is a T helper cell epitope;

S is a spacer amino acid residue;

m is 0, 1, 2, 3, 4, or 5; and

n is 1, 2, 3, or 4.

- 2. The chimeric peptide or peptides according to claim 1, wherein said internal peptide cleavage product is an amyloid β peptide, which, when naturally-occurring, is derived from cleavage of β amyloid precursor protein (β APP).
- The chimeric peptide or peptides according to claim
 wherein said internal peptide cleavage product has an amino

acid sequence selected from the group consisting of SEQ ID NOs:2, 3, 4, 5, 6, 7, and mixtures thereof.

- 4. The chimeric peptide or peptides according to claim 1, wherein N is the first 2 or 3 amino acid residues from the free N-terminus of said internal peptide cleavage product.
- 5. The chimeric peptide or peptides according to claim

 1, wherein C is the last 2 or 3 amino acid residues from the free

 C-terminus of said internal peptide cleavage product.
- 6. The chimeric peptide or peptides according to claim T_h is a promiscuous T helper cell epitope.
- 7. The chimeric peptide or peptides according to claim 6, wherein said promiscuous T helper cell epitope is derived from tetanus toxin, pertussis toxin, diphtheria toxin, measles virus F protein, hepatitis B virus surface antigen, Chlamydia trachomitis major outer membrane protein, Plasmodium falciparum circumsporozoite, Schistosoma mansoni triose phosphate isomerase, or Escherichia coli TraT.
- 8. The chimeric peptide or peptides according to claim 7, wherein said promiscuous T helper cell epitope has an amino acid sequence selected from the group consisting of SEQ ID NOs:8 to 27.
- 9. The chimeric peptide or peptides according to claim 1, wherein S is glycine.
- 10. An immunizing composition, comprising an immunizing effective amount of the chimeric peptide or peptides

according to claim 1 and a pharmaceutically acceptable carrier, excipient, diluent, or auxiliary agent.

- 11. The immunizing composition according to claim 10, wherein said pharmaceutically acceptable auxiliary agent is an adjuvant.
- 12. The immunizing composition according to claim 11, wherein said adjuvant is alum.
- 13. A method for immunization against the free N-terminus or free C-terminus of an internal self peptide cleavage product derived from a precursor protein or a mature protein, comprising administering to a mammal the immunizing composition according to claim 10, for which the internal peptide cleavage product is a self molecule of the mammal.
- 14. The method according to claim 13, wherein the mammal is a human.
- 15. The method according to claim 14, wherein the internal self peptide cleavage product is an amyloid β peptide, which when naturally-occurring, is derived from cleavage of β amyloid precursor protein, whereby said method raises antibodies specific to the free N-terminus and/or free C-terminus of the amyloid β peptide.
- 16. A molecule comprising the antigen-binding portion of an antibody specific for the chimeric peptide according to claim 1.
- 17. The molecule according to claim 16, wherein said antibody is a monoclonal antibody.

- 18. A method for passive immunization, comprising administering to a mammal the molecule of claim 16.
- 19. The method according to claim 18, wherein the mammal is human.
- 20. The method according to claim 19, wherein said chimeric peptide against which the antibody is raised is one where the internal peptide cleavage product is an amyloid β peptide, which, when naturally-occurring, is derived from cleavage of β amyloid precursor protein (β APP).